Università degli Studi di Salerno
CENTRO DI ECONOMIA DEL LAVORO E DI POLITICA ECONOMICA

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TRAINING POLICY FOR YOUTH UNEMPLOYED IN A SAMPLE OF EUROPEAN COUNTRIES

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Indice

Abstract[#]

The aim of this paper is evaluating the impact of training on the employability of young long-term unemployed (18-24) within the EU. The analysis focuses on three countries representing different educational and training systems: Spain and Sweden are examples of a rigid and of a flexible sequential system, respectively; Germany is the best example of a dual educational and training system. Following a new wave in the literature on evaluation of employment policy, the paper attempts a target-oriented approach, as opposed to a programme-oriented approach. The effect of training on the labour market participation of young people is estimated by a multinomial LOGIT model relative to five labour market statuses: unemployment, employment, training, education and inactivity. The impact of the policy is analysed controlling for other important individual determinants, such as human and social capital endowment, the reservation wage and unemployment duration. The estimates provide little evidence in favour of a positive impact of ALMP in Spain and Germany. Only in Sweden the probability to be employed is significantly dependent on participation on training programmes. This result could be also due to the poor targeting of the policy to the weakest groups, especially in Southern European countries. It raises the issue of whether ALMP is a good instrument to fight youth unemployment and suggests a reform of the general education system could be more "effective".

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Non technical summary

The aim of this paper is evaluating the impact of training on the employability of young long-term unemployed workers (18-24) in the EU. The analysis focuses on three countries representing different educational and training systems as well as approach to Active Labour Market Policy (ALMP): Spain and Sweden are examples of a rigid and of a flexible sequential system, respectively, with training taking place when education is completed or interrupted; Germany is the best example of a dual educational and training system. Here, every high school and University student has to pass through a period of training.

For different reasons, at the moment, the countries considered experience a high unemployment rate. In Sweden, unemployment has increased conspicuously in the early 1990s, remaining high until now despite the implementation of training programmes on a large scale. The Spanish unemployment is traditionally very high and its welfare system has been featured by a strong role of family, as opposed to state support. A perversely high and increasing share of temporary employment has been the main feature of the 1990s. Germany has also seen unemployment increased after the 1991 unification and, as a reaction, has started ALMP programmes on a large scale in the second half of the 1990s.

Following a new wave in the literature on evaluation of employment policy, the authors attempt a target-oriented approach, as opposed to the more traditional programme-oriented approach. They look at the effect of training on the labour market participation of a specific group, the young registered unemployed, controlling for different determinants, such as individual characteristics, human and social capital endowment, the reservation wage, unemployment duration. In fact, they assume the effectiveness of the measures implemented depends crucially on the way of working of the entire labour market and on the reform of the education, training and employment systems.

Multinomial LOGIT estimates of the probability to belong to five different labour market statuses – unemployment, employment, training, education and inactivity – provide a vivid

picture of the features of youth participation to the labour market in the three countries considered.

The authors find little evidence in favour of a positive role of ALMP in increasing the employability of young people. Only in Sweden the probability to be employed is significantly dependent on participation on training programmes. The effect of ALMP on employment is quite weak in Spain and non-existent in Germany.

This result could be also due to the poor targeting of the policy to the weakest sub-groups of the target population, especially in Southern European countries. In fact, the variables included in the model seem unable to predict participation on training schemes. The only exception is Sweden, with a share equal to 32% of correct predictions of participation on training schemes, which confirms the importance of ALMP in this country. Moreover, the share of correct predictions of inactivity equals 27% for Germany and 17% for Sweden.

Their results raise the issue of whether ALMP is a good instrument to fight youth unemployment, considering young people are in the age when human capital formation is their most important objective, to be better addressed by making the general education system more “effective”, i.e. able to integrating the largest possible number of young people and to having closer links to the labour market, so to produce the qualifications that are necessary.

Introduction

The European Social Agenda defined in the Council of Nice declared: “social cohesion, the rejection of any form of exclusion or discrimination and gender equality are all essential values of the European social model”. Moreover, “employment is the best protection against social exclusion”, but “quality” in work both in job characteristics and in the work and wider labour market context are essential to deep to social model. Increasing quality in work can form part of a virtuous circle of increasing productivity, rising living standard and sustainable economic growth. Within the European Employment Strategy (EES) young unemployed are one of the main targets of employment policy and education and training are one of the main instruments to raise their employability.

All over Europe, various types of Active Labour Market Policy (ALMP) have been implemented in the last two decades. According to international conventions, they include: (i) job broking activities with the aim of improving matching between vacancies and unemployed; (ii) labour market training; and (iii) job creation (subsided employment). However, training schemes, such as work and training contracts, stages, scholarships, are the measures most suitable for young people, as they activate the accumulation of human capital necessary to find gainful employment. The aim of this paper is evaluating the impact of training on the employability of young long-term unemployed (18-24) in various EU countries. By “training” we mean the learning of work-related skills and knowledge.

As noted in Calmfors (1994), despite the fact that ALMP is often regarded by many as the *dues ex machina* that will provide the solution to the unemployment problem, nonetheless, there is growing scepticism regarding the effects of such policy on the employability of the workers involved. Such scepticism is based on the results of a large number of evaluation studies carried out in different countries. In the case of Sweden, Calmfors *et al.* (2001, p. 85) claim ALMP for young people has reduced open unemployment at the cost of lowering regular employment. Such

conclusion is the result of so many studies that it cannot depend only on the econometric methodology adopted and on inadequate data.

Following Schmid *et al.* (1996) and Schmid (2000), our starting point is that a programme-oriented approach is insufficient to evaluate the overall effectiveness of ALMPs, as the measures implemented include reforms of the education, training and employment systems and direct incentives to employ young workers. All these programmes actually affect the various transitions between labour market statuses typical of young people: education, training, employment (regular, irregular, part-time, full-time) and inactivity (education and social exclusion). Now, focusing on individual programmes, there is the tendency to study only the impact on one single outcome, employment. This means neglecting the interaction of different policy interventions and their cumulative impact on the behaviour of the target group.

This paper then follows a target-oriented approach, focusing on a specific target group, the youth registered unemployed, and attempts an overall evaluation of the impact of various policy instruments on the probability of belonging to a given labour market status, controlling for individual and environmental characteristics. As noted in Pierre (1999), few studies follow a target-oriented approach, which is encouraging on the novelty of our attempt.

The analysis focuses on three countries, Spain, Sweden and Germany, representing different educational and training systems as well as different approaches to ALMP. While featured both by a sequential educational system, similar to other Mediterranean EU countries, Spain provides her young people with very rigid and, similar to other Northern European countries, Sweden with very flexible educational tracks. Training for those leaving or dropping out from education is guaranteed in Sweden by quite a remarkable expenditure in ALMP and in Spain by the market, *via* a large share of temporary work. For the less skilled, less lucky individuals entering unemployment, the Swedish system provides passive income support and ALMP on a large scale and Spain again temporary work and family financial support. Conversely, Germany is the best example of a dual educational and training system,

aiming to solve the problem of school-to-work transitions of young people with training and education going hand in hand. This system has guaranteed lower than OECD average youth unemployment for many decades, but in the 1990s it has been put under threat by the German unification. The German answer to increasing youth unemployment has been a conspicuous increase in expenditure in ALMP measures.

Multinomial LOGIT estimates of the probability to belong to five different labour market statuses – unemployment, employment, training, education and inactivity – provide a vivid picture of the features of youth unemployment in these three different labour markets. We study the effects on labour market participation of various sets of individual characteristics: the demographic characteristics (age and gender); the human capital endowment (education and work experience); the reservation wage (proxied by the University education attainment of the mother, parental support, having children); the length of previous unemployment spells; the social capital endowment (proxied by involvement in political and social activities and in voluntary work); the intensity of job search.

We find little evidence in favour of a positive role of ALMP in increasing the employability of young people. Only in Sweden the probability to be employed is significantly dependent on participation on training programmes. The effect of ALMP on employment is quite weak in Spain and non-existent in Germany.

This result could be also due to the poor targeting of the policy to the weakest groups, especially in Spain and, to a lesser extent, in Germany. Similar to Italy (Caroleo and Pastore, 2001), the variables included in the model seem unable to predict participation on training schemes in these countries. The only exception is Sweden for participation on training schemes, with a share of correct predictions equal to 32%, which confirms the importance of ALMP in this country. Moreover, the share of correct predictions of inactivity equals 27% for Germany and 17% for Sweden.

Our results raise the issue of whether ALMP is a good instrument to fight youth unemployment, considering young people are in the age when human capital formation is their most

important objective, to be better addressed by making the general education system more “effective”, i.e. able to integrating the largest possible number of young people and to having closer links to the labour market, so to produce the qualifications that are necessary.

The outline of the paper is as follows. Section one discusses the main peculiarity of youth labour markets in Europe in a comparative perspective. Section two shows the differences in educational and training systems in the countries considered, Spain, Germany and Sweden. Section three provides evidence on ALMP programmes in Europe, giving information not only on expenditure, but also on participation to the programmes. Section four introduces the econometric methodology adopted to analyse labour market participation and gives the definitions of the dependent and independent variables. Section five discusses the results. Some concluding remarks follow.

1. The nature of youth unemployment

The youth activity rate is generally lower than for adults in almost every country. Low labour force participation crucially depends on the educational, vocational and training systems, on the one hand, and on the labour market structure and institutions, on the other hand. Cross-country differences in the degree of efficiency of the educational system explain most part of the differences in the participation rate of young people. In almost every country, the teenagers (15-19) tend to have lower participation rates, due to school attendance, whereas the young adult's (20-24) participation is generally dependent on the effectiveness of training systems in favouring a smooth transition from school to work. Germany is the exception: there, young adults have slightly higher unemployment rates than teenagers.

An efficient education system reduces also the share of young adults that drop out of the labour market into the unofficial economy and / or into social exclusion or marginalisation (Hammer and Julkunen, 2002). In fact, a poor educational and training system contributes dramatically to raise the number of unskilled young workers that flow into the labour market with little, if not any probability of finding a good job. Among the cultural problems, the family background of individuals and the types of welfare systems should also be mentioned. The hypothesis that weak labour market conditions could generate social exclusion is based both on demand and supply side considerations. On the demand side, entrepreneurs tend to consider repeated unemployment spells early in a person's life as a sign of scant motivation to work. On the supply side, unemployment may lead to depression, family break-up and social isolation. Reducing the number of those experiencing early unemployment spells in their lives is an essential step for reducing the bulk of what is long-term persistent unemployment in a country.

Common across all OECD countries is the large and perhaps growing number of unemployed workers among the youth population. ILO (1999, p. 1) claims that, on average, and almost

everywhere, young people (who enter the labour market) are twice as likely to be unemployed as adults.

When considering the causes of youth unemployment, one should bear in mind a high unemployment rate mirrors the low employment rate among young people. This last depends on two groups of factors. First, it depends on the level of aggregate demand and income growth. Nonetheless, holding constant the rate of GDP growth across countries, differences still exist in the youth unemployment rates, suggesting that the structure and features of the youth workforce also matter.

Large evidence exists of the fact that the flows in and out of employment are very high among the youngest (Clark and Summer 1982). These flows are due to various factors, such as the tendency to return to education or to go into training and re-training schemes. Especially when on-the-job training is missing, young workers often prefer (or are forced) to stay out of the labour market to participate to formal off-the-job training. This means that when school-to-work transitions are not smooth there is place for frequent unemployment spells and fragmented labour market experiences, which could in some cases be conducive to long term unemployment.

Also the flows between employment and unemployment are very frequent for some sub-groups of particularly low skill young workers. Unemployment and employment spells are generally shorter than for high skill young and adult workers, due to their tendency to enter a chain of low pay temporary and or part-time work. The low outflows from unemployment into a stable occupation[1] of some groups of young workers depend also on the tendency on the part of firms to prefer the adults. This is due, in turn, to the lower skill and experience level of the latter, that an inefficient education and training system is unable to increase. The cost of on-the-job training for young workers by firms significantly increases the cost of hiring them.

[1] By “stable” occupation we mean here a type of occupation that is not of short length, but not necessarily on the same permanent full-time job. The degree of labour turnover has increased everywhere, also and, perhaps, especially for young workers. However, a stable occupation is not inconsistent with job-to-job moves if they do not imply unemployment spells.

Furthermore, except for Southern European countries, such as Italy and Spain, young men are worse off in terms of lower job finding and higher job loss rates compared to their female counterparts (see for a cross-country comparison Ryan, 2001; and O'Higgins, 2001).

The previous analysis strongly supports the view that two very different paths are offered to young workers in almost every country. On the one hand, some young workers enter a positive virtuous circle that leads from education to training to work in countries with a sequential education system and from education and training to work in countries with a dual education system. On the other hand, some groups of young people get stuck into unemployment, unable as they are to accomplish a smooth transition from school to work. Once entered unemployment early in life, a young worker has got higher probabilities to permanently enter the bulk of long term unemployment also later on in his life.

As noted, among others, in O'Higgins (2001), this suggests youth unemployment and employment policies be especially targeted to young workers that have a weak position in the labour market. The main aim of employment policy targeted to young workers in general should be an efficient education system able to increase (reduce) the number of those entering the first (second) path. As noted above, a high rate of school attendance shrinks youth, but increases the size and quality of adult labour market participation. Once reduced the number of school dropouts among young workers, the policy maker should increase their probability of job finding. To such an end, labour market policy should not be confined to passive income support, but actively affect their employability. This is now perceived everywhere in the world as the best way also to lastingly reduce the poverty rate and social exclusion. Similarly, direct employment of young workers into social or public services with little, if not any on-the-job training or experience is seen as not dissimilar from passive income support. Unable as they are to increase the degree of employability of young workers, direct employment schemes are to be avoided.

2. The choice of the countries

As noted in the previous section (Ryan, 2001), the degree of flexibility of the educational and training systems plays a determinant role in providing the framework within which the school-to-work transitions of young people take place. They determine not only the general context in which ALMP operate, but also their degree of effectiveness at a micro-level. Whether coupled or not with work, in fact, in principle, training schemes are especially addressed to specific segments of the youth workforce: a) those unable to complete formal education; b) those with completed educational track, but unable to gain work experience, which is necessary, in turn, to find stable and gainful employment. As a consequence, in a cross-country perspective, it is very likely the effect of ALMP, and training in particular, on the pattern of labour market participation of young people depends substantially on the education and training system existing in the country considered.

Two different systems can be found in Europe: a *sequential* versus a *dual* education system. The first most common *sequential* system is based on the assumption that young people should enter training after they have completed formal education. The sequential system is implemented with a different degree of flexibility across EU countries, with the education system of Northern countries (including, in the YUSE sample, Finland, Norway, Scotland and Sweden) being much more flexible than that typical of Southern countries (including, in the YUSE sample, France, Italy and Spain).

Various factors determine the infamous rigidity of the Southern European education system. Firstly, it has a very complex organisation. A difficult path with various barriers raised to discourage transitions across different tracks is the main feature. To make things harder, the teenagers are faced with the difficult choice of the best educational track already after compulsory school. This choice, made at such a young age, coupled with the rigid pathway given by the system, is destined to influence most of the future educational and working career of the individual. Thirdly,

especially in Italy, until the recent reform of tertiary education, seven years were necessary on average to obtain a University degree.

Another related issue is the tendency of Southern European education systems to be centred on those students who are successful in their curricula. However, given the complexity of the system and the difficulties to be faced by students, the number of those dropping out from formal education is quite high, at every stage of the educational career. Until recently, not any alternative in terms of training was offered to these young people. In fact, ALMP expenditure for young people is traditionally very low. Moreover, market based systems of training, such as temporary contracts have been introduced only recently on a large scale in the case of Spain and moderately in Italy. As a consequence, especially in high unemployment areas, school dropouts foster a stagnant unemployment pool.

Northern European countries have a more flexible sequential education system and, hence, more efficient school-to-work transitions. The Northern education system is commonly characterised as having a three track system: a general education track that leads to work through higher education; a vocational track and a work-training and / or apprentice track. Young people do have to make choices early in their lives concerning which 'pathway' they want to pursue, but they have the opportunity to move from the vocational to the academic pathway and vice versa. The Nordic system is characterised by a low dropout rate and by a higher than average expenditure to provide training in favour of school dropouts. As noted in Calmfors *et al.* (2002), Sweden has been one of the countries where the utmost stress has been put over the 1990s on the role ALMP could play in closing the circle of sequential education systems, providing the last resort of human capital formation on a large scale.

Also the North European system has drawbacks. The main problem is the unavailability of young people and / or firms to attend / organise the pathways foreseen by the policy maker. The 'stigma' surrounding some training schemes in Northern countries (for England, see O'Higgins, 2001, p. 119), has meant that young

people are very reluctant to participate. The cost of providing satisfactory training for the school dropouts is a further problem.

A different approach to gaining flexibility in the education system is pursued in Germany and other German speaking countries, such as Austria, Switzerland and Denmark. The dual education and apprenticeship system envisages the young person goes through a period of apprenticeship or traineeship, while being involved in formal education. The dual system can be school-based as well as work-place-based. As noted, among others, in Ryan (2001), massive apprenticeship and vocational education are combined with government-led programmes in the dual system. The apprentice is employed in a three- to four year contract with an employer. Each year (s)he is supposed to spend a certain number of weeks in vocational school. The wage during the apprenticeship is set through collective agreement, and is subsidised by the state. In this way, at the end of formal education, when seeking employment, the young person will count not only on education, but also on some work experience. In so doing, the dual system aims to prevent potential market failure in the market for firm specific human capital. The main drawback of the dual system is it requires a strong commitment by every actor. In various countries, for instance, it is difficult to find a sufficient number of apprenticeships.

Besides, the educational and training systems are part of the more general welfare system and follow the same philosophy. As laid down in Esping-Andersén (1990), the family bears the highest cost of the welfare system. Their assistance to young people is the main instrument to fight the odds of a market economy. Germany and Sweden belong to the Northern European type of state based welfare system.

The effectiveness of the two systems is rather different. A nice consequence of the dual system in Germany is the dramatically low youth unemployment rate. It equalled 9% for the young adults (18-24) against a EU average of 19.1% in the second half of the 1990s. The gap with the prime-age unemployment rate (25-54), high in every other country, including those adopting the most flexible type of sequential system, is almost cancelled in Germany. Nonetheless, young adults (20-24), tend to have slightly higher

unemployment rates than the teenagers (15-19), which is a peculiarity of Germany (O'Higgins, 2001, Fig. 2.1). This could be due to the fact that some teenagers find easily a job during participation on apprenticeship, but then they lose it later. Therefore, in some cases, the German system tends simply to postpone, rather than eliminating the risk of unemployment. The unified Germany has represented an important testing ground for the dual system. The increase in the unemployment rate during the 1990s seems to suggest the dual system works well when the average unemployment rate is low.

Although higher than in countries adopting a dual system, the unemployment rate of young people in Northern European countries is traditionally lower than in Southern European countries: it was at 17.8% in Sweden and 34.2% in Spain for those aged 18-24. The rigid sequential system is often associated with high and persistent youth unemployment.

Confirming a finding of the literature relative to the previous decades, also in the second half of the 1990s, the youth unemployment rate has noticeably decreased, together with the average unemployment rate.

In the following sections, the focus will be on Sweden as example of the Northern European more flexible education system, on Spain as example of the Southern European more rigid education system and on Germany as the best example of dual system.

3. Cross-country evidence on ALMP

The following figures 1 and 2 show the evolution of expenditure in active and passive policy across various EU and non-EU countries in 1985 and in 2000. The tick lines represent average values in the sample considered. Three groups of countries can be disentangled, according to the level of expenditure as a share of GDP. The first group includes countries, such as Denmark, the Netherlands and Belgium, which have a high level of expenditure in both active and passive policy measures during the 1980s. An intermediate group includes countries with a higher than average expenditure in active, but not in passive income support, such as Sweden and, to a lesser extent, Italy, and countries with a higher than average expenditure in passive, but not active measures, such as Spain and, to a lesser extent, also France and the UK. A last bigger group includes countries, such as Japan, the USA, Austria, Portugal, Greece and Switzerland, with a very low level of expenditure in both active and passive measures. Also at a first glance, it seems clear this taxonomy mirrors only in part the distribution of unemployment, as noted in Nickell (1997) with reference to various other labour market institutions.

Figure 1. Ratio of expenditure for active to passive measures in 1985

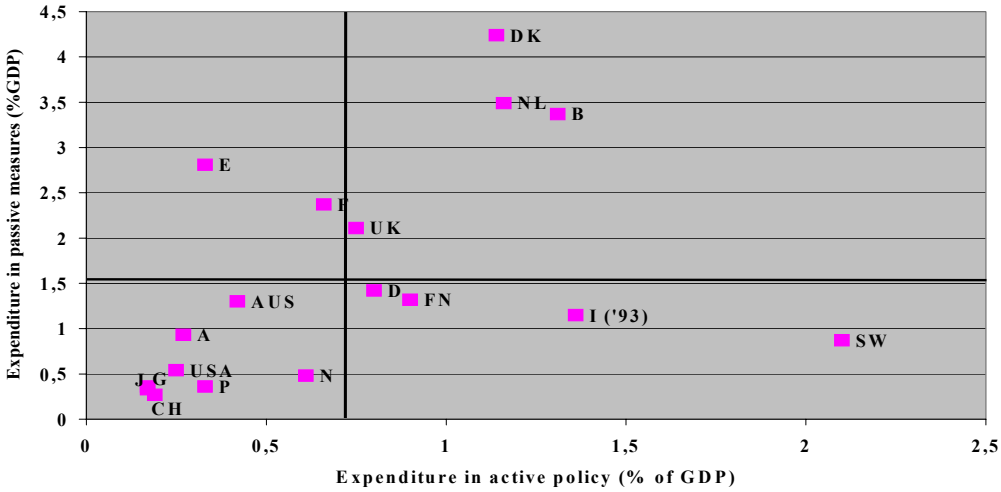
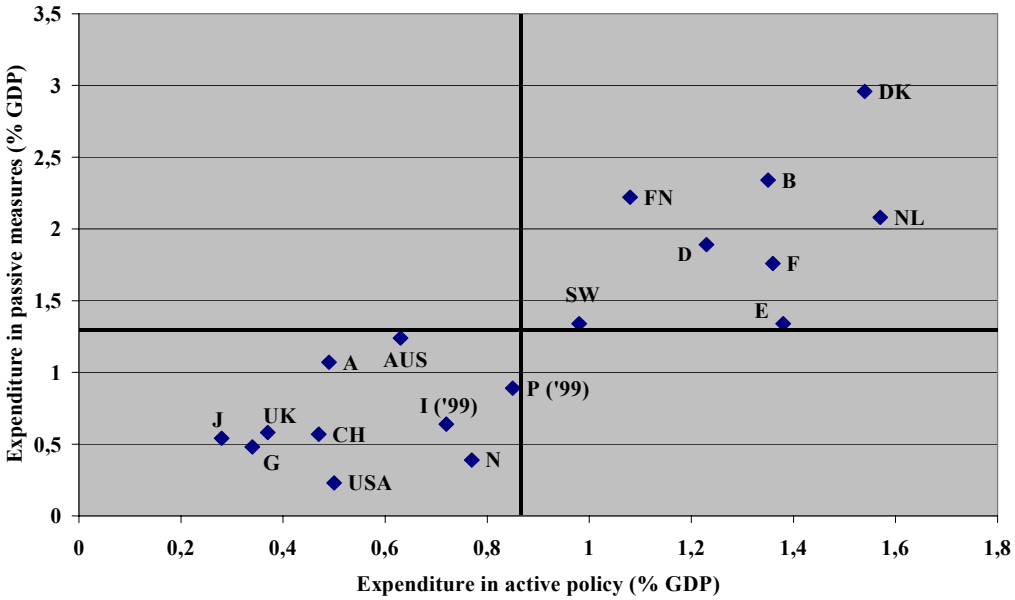


Figure 2. Ratio of expenditure for active to passive measures in 2000



The overall expenditure in employment policy for the unemployed has decreased from 1985 to 2000, due to the reduction in unemployment in many countries in the late 1990s, but also to the growing emphasis on pro-active measures. In fact, the reduction has regarded the expenditure in passive to a larger extent than that in active measures. More generally, there is a more balanced distribution of expenditure in the two types of measures, as shown by the scattering of points along a positively sloped curve.

Noticeable differences across countries can be detected. The relative size of active measures has remarkably increased in one group of nations, including Spain, France, Germany and Finland. Not surprisingly, these are either traditionally high or new high unemployment countries. Italy is the exception. Here the share of expenditure in active compared to passive measures has remained substantially unchanged, if not reduced, despite the persistently high unemployment rate. In the case of Sweden, after peaking to over 3 per cent of GDP in 1994, expenditure on ALMP has reduced since then, although remaining one of the highest among OECD members (OECD, 2001).

The following Table 1 provides two raw indicators of the degree of effectiveness of pro-active measures in favour of young people at the end of the 1990s, roughly when the YUSE survey was conducted. Column one denotes the expenditure in favour of young people as a share of total expenditure in ALMP. Column two denotes the share of participants on pro-active measures over total labour force. Comparing the two indicators, it appears the UK, Portugal, Italy, Greece, France and Finland, have the highest share of expenditure in pro-active measures in favour of young people. Nevertheless, only France, Portugal and Finland have a remarkably higher share of young people on active schemes. Spain has a higher than average share of participation and a lower than average share of expenditure, suggesting that the programmes implemented have a low cost per participant. Sweden and Germany, among the countries with the highest share of expenditure on ALMP over total GDP, have a low share of expenditure in favour of young people and a low share of young participant.

Table 1. Expenditure and participation on ALMP of young people by country (%; 1999)

Country	(a)	(b)	Country	(a)	(b)
USA	6,00	0,56	Spain	6,12	2,10
Japan	0,00	0,00	Austria	8,16	0,11
Denmark	6,49	1,82	Belgium	0,82	0,24
Finland	17,59	2,07	France	24,26	2,82
Norway	1,30	0,26	Germany	6,50	1,00
Sweden	1,45	0,63	The Netherlands	2,55	0,56
Greece	32,35	0,00	Switzerland	2,13	0,00
Italy	34,72	1,10	UK	40,54	1,01
Portugal	36,47	2,64	Australia	11,11	0,93

Note: (a) represents the expenditure in favour of young people as a share of total expenditure in ALMP; (b) represents the share of participants on pro-active measures over total work force.

Source: OECD (2001), Employment Outlook.

4. Modelling labour market participation

It is an important part of the EES to stress the need for continuous monitoring and evaluation of the results obtained. However, while monitoring is now established in many EU countries, evaluation has been carried out until now mainly according to the conventional programme-oriented approach to policy evaluation. Not to mention the serious econometric shortcomings of such an approach, the opinion that it is too specific is now widely held (Schmid *et al.*, 1996; Meager and Evans, 1998; Pierre, 1999). Our starting point is a programme-oriented approach is insufficient to evaluate the overall effectiveness of ALMP especially in the case of young people. In fact, the measures implemented include reforms of the education,

training and employment systems, arrangements to favour temporary employment and direct incentives to employ young workers. All these programmes actually affect not only the employability of young people, but all the transitions among education, training, employment (regular, irregular, part-time, full-time) and inactivity (education and social exclusion) in various ways. Now, focusing on individual programmes and in general on the so called “treatment effect”, i.e. the ability of training policy to increase the employability of young people means neglecting the interaction of different policy interventions and their cumulative impact on the behaviour of the target group.

This paper then follows a target-oriented approach, focusing on a specific target group, the youth registered unemployed in a selection of EU countries. An overall evaluation of the impact of various policy instruments on the probability of belonging to a given labour market status, controlling for individual and environmental characteristics, is conducted estimating a Multinomial LOGIT model for five labour market statuses.

4.1. The outcome variable

The analysis is based on the Youth and Social Exclusion in Europe (YUSE) databank. This comes from an *ad hoc* survey of about 17,000 young people (18-24) interviewed in the second half of the 1990s and sampled among unemployed registered at the local unemployment office for at least three months, one year before the interview. For this reason, we compare the initial register with the final ILO definition of unemployment. Question f13 of the questionnaire is used to detect the labour market status of each individual at the time of the interview. It asks: “What has been your main activity during the last week?” According to the answer given to this question, the respondents have been grouped in five homogeneous statuses forming our outcome variable, Y_i with $i= 0, 1, .., 4$:

- *Unemployment*, including those who are jobless, but actively seeking a job (*Y = 0*);
- *Employment*, including those with permanent or temporary contract or in occasional, casual or irregular, work activity (*Y=1*);
- *Traineeship*, including those on various types of on- or off-the-job training schemes (*Y=2*);
- *Education*, including those in compulsory school, vocational school, apprenticeship, academic or University education (*Y=3*);
- *Inactivity*, including those in domestic work, in maternity, undergoing military service or involved in other similar activity (*Y=4*).

Some observations and caveats are in order. Firstly, unemployment has been labelled as Y=0 to indicate that it is considered in the estimates the base alternative, to which all the other alternatives are normalised to solve the so-called indeterminacy problem typical of multinomial LOGIT models (Maddala, 1983; and Greene, 2000)**.** Secondly, grouping together formal and informal employment could be considered not completely satisfactory. However, the share of occasional work was low and brought together regular and irregular work in the questionnaire adopted in Northern countries. Thirdly, the case when the outcome variable equals two could be taken as a way to assess how fine targeted is ALMP to the needs of youth unemployed. In fact, the independent variables can be used to test whether the sub-groups of young workers involved in training are those indicated as the most in need of training in the European Employment Strategy and in the National Action Plans of the countries considered, such as low skill, long term unemployed. Fourthly, the inclusion of apprenticeship in the educational status is mainly based on the German view of apprenticeship as part of the educational track.

Some caveats apply also to the modelling strategy adopted. The outcomes considered in the multinomial LOGIT model should have neither particular ordering nor sequence. In the former case,

one should use, for instance, the ordered PROBIT model[2]. In the latter case, one could use the sequential response model if, for instance, the labour market choices of individuals occupying subsequent stages of the educational track are significantly different (Maddala, 1983, Ch. 2). As for the ordering of the statuses included in the above outcome variable, it is apparent the data does not naturally suggest any inherent ranking of the options considered, as, for instance, being on education or training cannot be considered any worse than being employed, especially in the case of young people. As for the sequential response model,

Moreover, the so-called property of Independence of Irrelevant Alternatives (IIA) should apply in the case of a multinomial LOGIT model. The IIA property implies that the probability of one status to be chosen over another status is independent of the availability or attributes of alternatives other than the two under scrutiny. In other words, the probability to choose any status of the outcome variable should be independent of the probability to choose any other status (McFadden, 1984, pp. 1413). However, as already noted in the seminal paper by Clark and Summers (1982), it is typical of young people, especially when unemployed, to be involved in various activities at the same time. Young people tend to occupy different statuses in the meantime. In our sample, this also holds true. The answers to question f13 of the questionnaire were not mutually exclusive, as the interviewees could declare they were occupying two or more statuses at the same time. For instance, they could be registered as unemployed in the national employment office, but be in education and have occasional jobs. Also workers involved in ALMP could be in need of finding paid, formal or informal, employment.

How was this problem tackled in the analysis? Firstly, an attempt has been made to make the options available mutually exclusive, imposing the ILO definitions of employment, unemployment and non-participation to the YUSE data. It has been assumed that any person holding any kind of paid job was employed, although involved in other activities or declaring to be

[2] An example of analysis of ordered data is the level of educational qualification, which goes from no education to primary, secondary and university.

unemployed. Those declaring they had not any job, but were actively seeking a job have been considered unemployed. The remainder of the sample has been considered out of the workforce. As already noted, three cases of non-participation, such as participating on training schemes, University education and discouragement, have been distinguished. In addition, McFadden (1984, p. 1414) claims the IIA property "is theoretically implausible in many applications. Nevertheless, empirical experience is that the multinomial logit model is relatively robust, as measured by goodness of fit or prediction accuracy, in many cases where the IIA property is theoretically implausible".

Table 2 gives a snapshot of labour market participation in our sample of registered unemployed at the time of the interview. The first apparent feature of the data is the quite low unemployment rate. With small differences across countries, only one third of the samples remains unemployed one year after registration in the unemployment offices. This could mirror in part the difference between registered and ILO unemployment and in part the high degree of turnover typical of young people.

Table 2. Frequencies of the outcome variable

Outcome	Sweden	Germany	Spain	All
Unemployment	31.1	25.0	27.9	29.2
Employment	30.8	28.2	48.1	37.2
Training	15.1	18.8	6.3	9.6
University	16.1	11.9	11.2	16.2
Inactivity	6.9	16.1	6.5	7.8

Source: own elaboration on YUSE data.

Similarly remarkable is the high share of employment, which is again also a consequence of the tendency of many registered unemployed to be employed. In the meantime, the high share of employment in Spain depends essentially on a much higher than average share of temporary, 30.7 against an average of 17.3 per cent, and occasional work, 13.7 against 8.6 per cent, but also to

the lower than average share of permanent employment in Sweden and Germany, 14.7 and 10.0 against 20.1 per cent. This is evidence of the excellent recent performance of the Spanish labour market in providing gainful employment and labour market integration to young people, although at the cost of increasing precariousness of job conditions.

4.2. The independent variables

In addition to the typical variables used to predict labour market participation, such as demographic characteristics, the level of human capital accumulation, the reservation wage, unemployment duration and participation into training schemes, some variables have been included to test hypotheses relative to the role of social capital endowment.

Individual characteristics include age and gender. The human capital endowment of young workers is measured above all by the degree of education attainment, as detected using the CASMIN scale. After some experimentation, four groups were selected: those with tertiary education (CASMIN equals 3), those with high secondary education (CASMIN equals 2c), those with low secondary education (CASMIN equals 2a and 2b) and those with compulsory education (CASMIN equals 1a, 1b, 1c). The last group is used as baseline.

Especially for young people, a large literature points to the role of work experience as an important component of employability (Ryan, 2001). Besides, education and work experience tend to be inversely correlated among young people, as the higher is the level of education, the lower is the level of skill and professional qualification, which increase together with work experience. Of course, these differences tend to abate with time passing. Work experience has been measured in months and upper truncated at a maximum of 108 months.

Only those unemployed at the time of the survey declared the reservation wage in our sample. Moreover, the doubt exists the

younger is the individual and the lesser is his work experience, the lower is his ability to evaluate her own possible contribution to economic activities. As a consequence, three different variables were used as proxy of the reservation wage.

The first variable refers to those whose mother attained University education, assuming, at least among adult people, women generally have a lower level of education than men do[3]. A favourable family background is expected to increase the reservation wage, thus increasing the probability to be into education, rather than in employment for young people. These expectations are based on sound theoretical and empirical evidence. Bohrman and Rosenzweig (1999) confirm that, although possibly affected by "ability bias" and assortative mating problems, the significant positive correlation between women schooling and the schooling of their children is a result that is robust to conventional controls. In the meantime, young people coming from richer families tend to find gainful employment earlier.

The second variable is a dummy for individuals with children. In this case, the variable is generally expected to increase the reservation wage, increasing in turn the need for paid work. However, having children represents also an important practical obstacle to work, which could increase firstly the risk of inactivity and then that of unemployment. When the latter case prevails over the former case, it suggests the welfare system does not provide sufficient childcare facilities.

Furthermore, we test whether receiving parental support prevents young people from finding a job. Notice parental support is partly a proxy for favourable family background. This is a potentially very important issue, especially in Southern European countries, due to the role of the family in the welfare system, but less so in Northern countries, where the pervasive role of the state in the welfare system tends to put a stigma on young people relying on family support.

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[3] This variable is supposed to catch the family background better than the more traditional "Leaving with parents" or "living alone", as these last variables seem to discriminate very little among young people, both across and within countries, reflecting more cultural than economic factors. Only few respondents had a father unemployed especially if in training or inactive.

As a large literature has shown relative to Italy (see, for instance, Nickell, 1997; Barbieri and Scherer, 2001; and Caroleo and Pastore, 2002), a puzzle features, for instance, the youth labour market participation in the case of family based welfare systems: the youth and women participation is very low, despite the absence of unemployment benefits. One possibility the advocates of labour market flexibility consider is that parental financial support works as a powerful substitute of unemployment benefits, substantially increasing the reservation wage of young people and women. Our expectation is to find a negative coefficient of parental support on the probability of finding a job and, conversely, a positive coefficient on the probability of remaining unemployed or out of the workforce, also in the case of Spain, but not necessarily in other countries. On a more positive note, high parental support is also a necessary condition for many workers, especially in Southern European countries, to go into tertiary education and remain there for long enough to get the degree. The questionnaire provided various possibilities to test for the role of parental support. Eventually, we chose a negative definition, due to the very high share of young people living on family support. In other words, we defined a dummy variable taking the value one for respondents that had "never received any financial support from their parents during the last year" (Question f39).

We also tested for the presence of duration dependence in unemployment, i.e. the possibility that *ceteris paribus* the longer is the spell of unemployment experienced by the worker, the higher is the probability to remain unemployed. The questionnaire includes a question on the overall time spent unemployed[4]. This variable has been preferred to the variable measuring the number of unemployment spells.

Another way to catch the effect of duration dependence is assuming the longer is the unemployment spell, the lesser is the intensity of job search. This is measured by the average number of actions implemented during the unemployment spell, weighted by the number of search methods considered in each country's

[4] The variable has been upper truncated for unemployment spells longer than 108 months.

questionnaire. It is based on question f17: “Thinking about current or last period of unemployment, can you indicate which methods you used to try to find a job?” Overall, over 10 different search methods are considered, such as placing advertisements, consulting some vacancy board, contacting employers directly, using a personal network of family and friends, contacting the unions, registering at private employment agency or other institutions, replying to advertisements, preparing public contests, attempting to start their own business. This variable is particularly interesting in the case of young people, as a large literature points to their tendency to move frequently between various labour market statuses in search for their best match. The variable could catch two different effects: firstly, it catches the presence of job search while involved in other activities; secondly, it catches the effects of past job search on the current labour market status. This suggests the interpretation of the results be taken with the due caveats.

The policy variable has been used to verify whether past participation on a pro-active scheme affects the present probability of finding a job among registered unemployed. In principle, the YUSE questionnaire includes questions that would allow disentangling different types of pro-active measures[5], as it contains quite detailed information on the present and past participation of interviewees to specific programmes. However, the number of workers involved in pro-active schemes is so low and the differences across countries so sizeable that we end up with one policy variable.

Some experiments have been carried out to check whether some forms of social capital endowment affect the labour market participation of young people. Of course, social capital is a multidimensional asset and is difficult to measure (Knack and

[5] Various attempts to be more specific on the policy adopted have failed. More specific variables include participation into off- or on-the-job training. Moreover, the questionnaire distinguishes the number of courses attended and the months spent in training. Question 32 asks: “How long have you spent on schemes during the past 5 years?” Question f33 asks: “Altogether, how many schemes have you been on?” In fact, the two variables could catch different phenomena. Finally, it is possible to distinguish past from present participation. In all these cases, the number of those answering the questions was quite low.

Kiefer, 1997). However, the information available covers some important aspects of what is meant by social capital and seems to be based on convincing theoretical rationales. Two variables have been used to proxy social capital endowment. The first variable, participation into social and political activity, is based on question f57: "Have you ever participated in any of the following activities or would you be prepared to do so?" Various answers are considered, such as signing a petition, participating into boycott strikes, on demonstrations, occupying factories, attending political, union or other organisational meetings and carrying a badge[6]. The regressor is obtained as an average weighted by the number of questions included in each country's questionnaire. It is expected that social capital increase the participation into employment and University education.

Another variable used is participation into voluntary work activity. Following Musella (2002), we assume voluntary work increases the degree of generic human capital endowment of the individuals, fostering their employability or, at least, their participation into University education.

[6] Three answers are possible in each case, which vary from 1 to 3. The answer "I would never do it" is coded one; "I would be prepared to do it" is coded two; and "I have already done it" is coded three.

Table 3. Mean of independent variables (to be continued)

Dependent variable	Unemployment (Y=0)				Employment (Y=1)				Training (Y=2)			
Independent variables	Spain	Germany	Sweden	All	Spain	Germany	Sweden	All	Spain	Germany	Sweden	All
Age (years)	22,9	22,6	21,6	21,7	23,2	22,7	21,4	22,0	22,8	22,7	21,6	21,9
Women (%)	68,0	39,6	45,2	47,0	57,5	47,2	46,6	48,8	65,4	46,7	46,8	52,9
University education (%)	5,8	8,7	6,5	8,4	10,1	10,4	5,3	10,7	7,7	13,6	7,4	8,0
High secondary education (%)	13,2	10,4	37,1	29,3	15,7	8,7	39,9	29,3	27,6	12,2	39,7	30,6
Low secondary education (%)	26,2	19,4	29,1	18,9	28,1	30,9	27,5	18,0	32,7	28,9	29,5	26,9
Months of work experience (months)	15,9	12,5	22,6	18,9	29,4	20,0	26,9	27,7	16,0	14,6	21,0	16,6
Mother with University degree (%)	2,2	3,1	13,6	7,6	2,5	3,5	15,0	7,0	7,1	4,4	15,3	7,9
Having children (%)	10,5	21,9	16,2	15,8	4,5	12,2	10,9	11,2	3,2	10,3	13,9	11,2
Having no parental support (%)	48,9	39,6	15,9	31,0	21,3	38,5	13,4	20,9	48,7	39,4	13,7	28,5
Months of Unemployment (months)	28,9	20,8	18,8	23,8	19,5	13,4	10,4	13,6	21,9	14,7	18,1	17,2
Past participation in training (%)	34,6	24,8	57,0	36,3	37,4	17,4	52,5	29,2	31,4	17,8	15,8	14,7
Active job search (weighted average)	1,63	1,33	1,25	1,40	1,64	1,30	1,29	1,45	1,67	1,32	1,27	1,40
Active political participation (weighted average	9,2	5,7	8,0	6,8	9,4	6,3	8,3	6,7	10,5	6,8	8,3	7,0
Doing voluntary work (%)	8,4	5,2	20,8	9,7	6,4	7,4	24,9	11,9	14,1	8,3	24,2	13,0

Source: own elaboration on YUSE data

Table 3.1 Marginal and impact effects based on a multinomial LOGIT model of the probability of belonging to various labour market statuses (continued)

Dependent variable	Education (Y=3)				Inactivity (Y=4)				Total			
Independent variables	Spain	Germany	Sweden	All	Spain	Germany	Sweden	All	Spain	Germany	Sweden	All
Age (years)	22,4	22,1	21,2	21,4	23,1	22,4	21,5	21,9	23,0	22,6	21,4	21,8
Women (%)	59,1	44,5	57,3	51,7	67,7	38,0	63,8	59,0	61,8	43,4	49,1	49,9
University education (%)	9,8	51,5	6,7	5,7	11,2	10,7	7,5	7,8	8,8	15,5	6,4	8,7
High secondary education (%)	25,4	19,7	37,0	44,3	10,6	16,2	31,6	26,8	16,5	12,3	38,0	31,7
Low secondary education (%)	50,7	8,3	30,4	20,2	16,8	30,2	30,5	23,8	29,6	24,8	29,0	19,9
Months of work experience (months)	11,6	6,9	17,7	14,6	22,5	10,6	23,8	21,7	22,3	14,0	23,0	21,5
Mother with University degree (%)	8,7	5,7	15,8	9,7	3,7	4,2	13,2	7,0	3,5	4,0	14,6	7,7
Having children (%)	0,7	2,6	5,9	6,2	24,8	25,6	53,4	42,6	7,0	15,3	15,1	14,2
Having no parental support (%)	60,5	58,5	17,0	46,3	31,1	38,3	12,6	24,1	35,8	41,3	14,8	28,9
Months of Unemployment (months)	20,1	9,6	11,5	13,8	25,0	12,6	14,1	17,0	22,7	14,9	14,6	17,2
Past participation in training (%)	31,2	8,3	59,8	26,0	37,3	14,9	51,1	29,7	35,6	17,8	49,4	29,4
Active job search (weighted average)	1,60	1,36	1,30	1,49	1,61	1,37	1,33	1,44	1,66	1,33	1,28	1,44
Active political participation (weighted average	11,1	8,4	9,6	8,4	8,7	7,0	8,1	7,0	9,6	6,6	8,4	7,1
Doing voluntary work (%)	9,4	6,1	25,9	14,8	8,7	5,2	16,7	10,1	7,9	6,5	23,1	11,7

Source: own elaboration on YUSE data.

5. Results

Overall performance of the model. Table 4 below reports the results of the multinomial LOGIT model discussed in the previous section for Sweden, Germany, Spain and for the entire sample. We chose to report directly the marginal and impact effects of the variables on the relative probabilities, rather than the estimated coefficients. The marginal (impact) effects measure the slope (the shift) of the cumulative distribution function for every unit increase of the independent variable in the case of continuous (discrete) independent variables. The marginal (impact) effects in the table are computed at the means of the covariates. This implies the effect of each covariate on the dependent variable refers to an individual of average characteristics. The marginal (impact) effects are obtained after opportunely manipulating the estimated coefficients and can be used to measure elasticity values. The marginal and impact effects are preferred to the coefficients, as the former should be more useful to find the elasticity values at the mean of the covariates. Moreover, in the case of the LOGIT with multiple outcomes, unlike the marginal and impact effects, the coefficients could have a different sign compared to the elasticity values. (Maddala, 1983; and Greene, 2000).

The overall performance of the model is satisfactory. The variables have the expected sign and the overall significance level is quite high for a multinomial model. Two tests for the overall significance level are provided in Table 4. The McFadden (1974) pseudo-R^2 measures the goodness of fit of the model to the data[7]. It is a typical log-likelihood ratio test, where the restricted model is based on the assumption that all the coefficients be equal to zero, except for the constant term. It is defined as:

[7] As shown in Maddala (1984), the usual R^2 would underestimate the goodness of fit of the model, as the maximum value it takes is lower than one and depends *ceteris paribus* inversely on the number of sample observations.

$$\text{McFadden Pseudo-}R^2 = , \; 1 - \frac{\log \; L_U}{\log \; L_R}$$

where L_U (and L_R) is the value of the log likelihood at maximum including all the variables (including only the constant term and assuming all the coefficients to be equal to zero). The McFadden takes a value comprised between 0 and 1. In the estimates reported, it is quite high for a multinomial LOGIT model.

Another test statistics of the overall significance level is the Count-R^2. This measures the number of correct predictions as a percentage of the total number of observations. The value for the model here discussed is always over 40 per cent for each country and for the entire sample.

The values of the Count-R^2 are reported for every single outcome. This is useful information, as it shows the performance of the model has to be attributed essentially to the ability of the regressors to predict labour market participation, with shares of correct predictions that range between 64% for Sweden and 84% for Spain in the case of employment and between 42% for Germany and 55% for Spain in the case of unemployment. The model performs in a satisfactory fashion also in the case of participation into education, with a McFadden that varies between 18% for Sweden and 49% for Germany. However, the variables included in the model seem unable to predict other types of inactivity, either in terms of participation on training schemes or of inactivity. The only exception is Sweden for participation on training schemes, with a share of correct predictions equal to 32%, which suggests the conspicuous expenditure in ALMP in this country is better targeted than in the other countries in the sample. Moreover, the share of correct predictions of inactivity equals 27% for Germany and 17% for Sweden.

Similar to the estimates relative to Italy carried out by Caroleo and Pastore (2001) on the same data set, in Spain the predictive power of the model in the case of participation into training and inactivity is low. In the case of training, this could be due, above all, to the low number of young people involved in training. As shown in section 2, although double the value in 1985, the Spanish

expenditure in ALMP was still very low in 2000 (Figures 1 and 2) and especially low for young people (Table 1). Recall also in our sample, people in training are only slightly more than 6 per cent. Moreover, the estimates seem to suggest targeting of ALMP be poor in this country. As a consequence, these estimates suggest the process of human capital formation is left only to a too rigid education system and to the market, *via* temporary employment. The low predictive power of the probability to be inactive suggests either some variables are omitted or inactivity is randomly distributed across the youth population.

The individual predictors. Not surprisingly, considering the homogeneity of the sample, the marginal effect of age is low in absolute value and insignificant almost generally. Only for Sweden, age significantly affects the probability to be unemployed and to be in training, whereas it reduces the probability to be in education and in inactivity. The positive effect of age on the probability to be unemployed and in training suggests there seem to be difficulties for young persons in the transition between education and work, especially for those with a high school diploma. Our estimates seem to confirm that the German dual system works in such a way to give good job opportunities and to reduce the probability to enter unemployment for young people. In Spain, age simply increases the probability to be in education, suggesting that, similar to Italy, education is a buffer against unemployment.

Gender is a significant predictor in our model. Confirming a general finding of the literature on youth unemployment (O'Higgins, 2001; and Ryan, 2001), women have a lower probability to enter unemployment and a higher probability to be in training or in education within the EU. Germany is the country were the female labour market seems to work better: in this country, women have a significantly higher probability to be employed or in training and a lower probability to be unemployed or inactive than men. Gender is not an issue when explaining the success in labour market participation early in a person's life, but in Spain. Similar to Italy (Caroleo and Pastore, 2002), in Spain being a woman increases the *ceteris paribus* probability to be unemployed.

Following expectations based on the human capital theory, holding a University diploma significantly increases the probability to be employed and reduces the probability to be unemployed or to continue education. Holding a high school diploma affects labour market participation in all the countries, but Sweden. As expected, individuals with a high school diploma tend to continue their educational track, attending either University or training programmes, rather than being in the more typical statuses of employment, unemployment or inactivity.

The same applies also to young people possessing a low secondary diploma: they essentially tend to continue education. The only difference is the tendency of this group to be inactive in Germany. This could suggest holding only a low secondary school diploma is a reason of social exclusion in Germany.

More generally, the educational variables affect significantly labour market participation in Germany and Spain, but not in Sweden. Moreover, in Germany, there is little and not significant difference of university compared to high secondary education as a buffer against unemployment.

Having gained work experience affects in the expected fashion the labour market participation of young people. It increases the probability to be employed and reduces the probability to be in all the other statuses. Spain and Sweden are the exception. Work experience affects positively the probability to be unemployed in Spain and the probability to be in education in Sweden. How to explain this result? In the case of Spain, the reason could be the high share of temporary employment and could be interpreted as a sign of precariousness of youth employment.

Family background, proxied by the tertiary education of the mother, is an important factor of labour market participation in Spain and in the entire sample, but not in Germany and Sweden. As expected, it increases the probability to be into education and reduces the probability to be employed. Caroleo and Pastore (2001) find the same result holds true for Italy. Again, the reason could be the higher unemployment rate of Southern Mediterranean countries, coupled with a culture and welfare system based on the role of the family, as opposed to the State.

Having children represents an important factor of low labour market participation for young people almost universally in Europe, but with slightly lower than average impact effect in Sweden, confirming the presence in this country of a solid welfare system. In turn, this could explain the low nativity rate within the EU: if having children is a factor of social exclusion, then it is better to postpone it until after having attained satisfactory employment. The variable increases the probability to be unemployed and inactive, whereas it reduces the probability to be employed and in education.

The third proxy of the reservation wage, parental support, is a significant factor of labour market participation, but with interesting cross-country differences. Looking at the entire sample, the lack of financial support from the family increases the probability to be unemployed and reduces the probability to be employed. The coefficients are significant and sizeable almost always in the case of Spain, similar to Italy (Caroleo and Pastore, 2001). Quite surprisingly, having no parental support increases the probability to be in education or, in the case of Spain, in training. Here Sweden features like Italy (Caroleo and Pastore, 2001), as having parental support increases significantly the probability to be in education.

We find evidence of unemployment persistence in all the countries considered, but in Spain. In general, the longer is the spell of unemployment, the bigger is also the probability to be unemployed or on training, but the smaller is the probability to be employed or on education. The negative duration dependence observed in the case of Spain is quite surprising, considering that Ryan (2001) indicates in long-term unemployment one of the most remarkable feature of youth unemployment in Spain. Our result probably mirrors the increasingly high share of temporary employment among the youth workforce, which, in turn, increases turnover in the labour market.

The intensity of job search affects negatively the probability to be unemployed and positively the probability to be employed in the entire sample, with the exception of Spain and Germany, where it reduces the probability to be employed. This could suggest finding a job in Germany and in Spain does not require implementing multiple strategies or methods of job search for some individuals,

perhaps the most skilled. In other cases, for unskilled individuals, also a very active search is insufficient to find a job. Why this is the case is difficult to interpret. Reduced intensity of job search could correlate with the high stability of jobs in Germany, but the high precariousness of employment in Spain. In fact, very stable as well as very unstable jobs could discourage the active search for other jobs.

Less ambiguous is the positive correlation of active job search with education in the case of Spain and the entire sample and with inactivity for all the countries, but Spain, in which case the coefficient is statistically insignificant.

Having participated on training programmes affects positively active participation to the labour market. In fact, it increases by almost 10% the probability to be seeking jobs when unemployed in all countries, but Spain, by a lower percentage the probability to be employed in all countries, but Germany. It reduces, in turn, the probability to remain in education and in training. In unreported estimates, similar to the case of Italy (Caroleo and Pastore, 2001) and other European countries, we find that being currently (and in the past) on a training programme does not increase the probability to find a job, but that to be still in training. This could be interpreted as evidence of a kind of training trap, meaning that people that are in training tend not to seek actively jobs. In other words, different from on-the-job search, search while on training is not very effective.

Finally, we find active political participation reduces the probability to participate actively to the workforce, either as employed or unemployed, but increases the probability to be in education. Germany is the exception, as there active political participation increases significantly, although by a small percentage the probability not to actively seek jobs. Similar results hold true for participation into voluntary work. Participation into voluntary work is an index of social capital endowment. Those who are actively seeking jobs or are employed are less active in voluntary work activities. Vice versa, those in education or in training are bound to be more involved into voluntary work.

A picture of youth unemployment in Europe. The identikit of youth unemployment emerging from the estimates relative to Spain is that unemployed are women, especially if with children, people with a low level of education attainment, trapped in precarious employment experiences, so to prevent accumulation of work experience and cause frequent unemployment spells. Moreover, unemployed are those with a poor family background and without financial support from their families: workers with a poor family background tend to exit education earlier in an unsuccessful search for a stable job. On a more positive note, due to the diffusion of temporary work, unemployment shows negative duration dependence. In other words, having quite easy access to temporary work, the unemployed are able to frequently interrupt their unemployment spells.

Germany gives a more typical picture of unemployment. It is especially constituted of men with low education attainment, little work experience and long unemployment spells. Unemployed people have typically, not only low human capital, but also low social capital: they do not participate actively to social and political life. Having children increases the risk of unemployment. For these individuals, participating on a training programme has no effect on the employment probability.

In the case of Sweden, unemployment is not dissimilar from Germany. Again unemployed are men with long unemployment spells and, to a lesser extent, with children. Unemployment again correlates with little social and political participation. Active search for a job is lower than for people in education. Having participated to training schemes slightly increases the probability to be employed. The main difference from Germany is age and education. It seems like in Germany unemployment increases simply with age, with little difference across educational groups.

Table 4. Marginal and impact effects based on a multinomial logit model of the probability of belonging to various labour market statuses (to be continued)

Dependent variable	Unemployment (Y=0)				Employment (Y=1)				Training (Y=2)			
Independent variables	Spain	Germany	Sweden	All	Spain	Germany	Sweden	All	Spain	Germany	Sweden	All
Constant	-0.06	0.55	0.37***	0.21***	0.48***	0.16	0.13*	0.19***	-0.12***	-0.29*	0.01	-0.01
	(0.33)	(0.79)	(0.00)	(0.00)	(0.00)	(0.46)	(0.09)	(0.00)	(0.00)	(0.10)	0.78	(0.48)
Age	-0.0001	-0.003	0.0002***	0.00004	0.00001	0.01	-0.0001	0.00002	-0.00002	0.01*	-0.0001***	-0.0001***
	(0.12)	(0.73)	(0.00)	(0.32)	(0.88)	(0.16)	0.35	(0.61)	(0.45)	(0.09)	(0.00)	(0.00)
Women	0.08***	-0.06***	-0.05***	-0.04***	-0.09	0.06***	-0.03	0.002	0.01	0.05***	0.01	0.02***
	(0.00)	(0.02)	(0.02)	(0.00)	(0.00)	(0.01)	0.16	(0.79)	(0.53)	(0.02)	(0.69)	(0.00)
University education	-0.22***	-0.27	0.13	-0.05***	0.18***	0.16	-0.08*	0.07***	-0.02	0.06	0.04	0.01
	(0.00)	(0.21)	(0.78)	(0.00)	(0.00)	(0.25)	(0.09)	(0.00)	(0.38)	(0.60)	(0.11)	(0.38)
High secondary education	-0.15***	-0.09***	-0.02	-0.02***	0.06*	-0.05	0.01	-0.06***	0.04***	0.004	0.02	0.01**
	(0.00)	(0.02)	(0.46)	(0.01)	(0.8)	(0.21)	0.79	(0.00)	(0.01)	(0.90)	(0.17)	(0.03)
Low secondary education	-0.10***	-0.08***	0.01	-0.04***	0.01	-0.19	-0.03	-0.05***	0.02	0.004	0.02	0.04***
	(0.00)	(0.00)	(0.74)	(0.00)	(0.59)	(0.45)	(0.28	(0.00)	(0.16)	(0.84)	(0.19)	(0.00)
Months of work experience	0.003***	-0.002***	-0.0004	-0.001***	0.005***	0.01***	0.003	0.004***	-0.0005*	0.001	-0.001**	-0.001***
	(0.00)	(0.01)	(0.35)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.09)	(0.28)	(0.01)	(0.00)
Mother with University degree	-0.01	0.002	-0.02	0.02	-0.13*	-0.02	0.005	-0.05***	0.05**	0.03	0.001	0.01
	(0.82)	(0.97)	(0.51)	(0.30)	(0.07)	(0.73)	0.86	(0.00)	(0.03)	(0.56)	(0.93)	(0.43)

Having children	0.18***	0.12***	0.07***	0.09***	-0.17***	-0.13***	-0.07**	-0.13***	-0.02	-0.10***	0.01	-0.01
	(0.00)	(0.00)	(0.02)	(0.00)	(0.00)	(0.00)	(0.02)	(0.00)	(0.58)	(0.00)	(0.77)	(0.24)
Having no parental support	0.16***	0.01	0.04	0.04***	-0.25***	-0.003	-0.02	-0.12***	0.03***	-0.02	-0.02	-0.01**
	(0.00)	(0.80)	(0.21)	(0.00)	(0.00)	(0.90)	0.52	(0.00)	(0.00)	(0.46)	(0.25)	(0.05)
Months of Unemployment	-0.002***	0.01***	0.01***	0.01***	-0.002***	-0.003***	-0.01***	-0.004***	-0.0001	0.0001	0.004***	0.001***
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.64)	(0.83)	(0.00)	(0.00)
Past participation in training	-0.02	0.09***	0.8***	0.09***	0.05**	-0.01	0.08***	0.02***	-0.02*	-0.01	-0.23***	-0.09***
	(0.36)	(0.00)	(0.00)	(0.00)	(0.04)	(0.66)	(0.00)	(0.01)	(0.08)	(0.69)	(0.00)	(0.00)
Active job search	0.04	0.07	-0.19***	-0.11***	-0.07***	-0.26***	0.04	0.05***	-0.01	-0.02	-0.05*	-0.05***
	(0.18)	(0.24)	(0.00)	(0.00)	(0.02)	(0.00)	(0.33)	(0.00)	(0.63)	(0.71)	(0.08)	(0.00)
Active political participation	-0.003	-0.01***	-0.02***	-0.01***	-0.002	-0.005	0.0001	-0.005***	0.002*	0.004	0.002	0.001
	(0.26)	(0.00)	(0.00)	(0.00)	(0.51)	(0.13)	(0.97)	(0.00)	(0.08)	(0.15)	(0.20)	(0.25)
Doing voluntary work	0.04	-0.07	-0.03	-0.05***	-0.09**	0.05	0.01	0.01	0.04**	0.06*	0.01	0.02***
	(0.25)	(0.12)	(0.21)	(0.00)	(0.03)	(0.23)	(0.61)	(0.56)	(0.02)	(0.07)	(0.50)	(0.02)
Number of observations for Y_i and country	687	480	784	4772	1186	540	774	6094	156	360	380	1574
Number of observations for Y_i	2466	1917	2517	16368								
Count-$R^{2\,(1)}$	0.55	0.42	0.45	0.46								
Count-R^2 for every Y_i	0.43	0.52	0.52	0.45	0.84	0.65	0.64	0.74	0	0.03	0.32	0.003
Log likelihood	-3220.589	-3000.621	-3750.453	-23674.81								
McFadden pseudo-R^2	0,12	0,11	0,11	0,09								

(1) The Count-R2 is obtained as the ratio or percentage of correct predictions over the total number of observations.

Source: own elaboration on YUSE data

Table 4. Marginal and impact effects based on a multinomial LOGIT model of the probability of belonging to various labour market statuses (continued)

Dependent variable	Education (Y=3)				Inactivity (Y=4)			
Independent variables	Spain	Germany	Sweden	All	Spain	Germany	Sweden	All
Constant	-0.23***	0.08	-0.35***	-0.27***	-0.72***	0.005	-0.15***	-0.12***
	(0.00)	(0.28)	(0.00)	(0.00)	(0.01)	(0.97)	(0.00)	(0.00)
Age	0.0001**	-0.01***	-0.0001	0.00001	-0.00001	-0.01***	0.00001	-0.00001
	(0.06)	(0.02)	(0.11)	(0.69)	(0.80)	(0.01)	(0.80)	(0.50)
Women	-0.01	0.01	-0.06***	0.02***	0.01	-0.06***	0.01	0.005
	(0.17)	(0.24)	(0.00)	(0.00)	(0.34)	(0.01)	(0.12)	(0.26)
University education	0.05***	0.09	0.01	-0.03***	0.01	-0.04	0.02	-0.004
	(0.01)	(0.17)	(0.85)	(0.01)	(0.55)	(0.79)	(0.38)	(0.56)
High secondary education	0.09***	0.16***	0.002	0.08***	-0.04**	-0.03	-0.01	-0.01*
	(0.00)	(0.00)	(0.90)	(0.00)	(0.04)	(0.42)	(0.29)	(0.07)
Low secondary education	0.11***	0.03**	0.002	0.02***	-0.04***	0.06***	-0.005	0.02***
	(0.00)	(0.03)	(0.92)	(0.00)	(0.00)	(0.01)	(0.65)	(0.00)
Months of work experience	-0.001***	-0.002***	0.001***	-0.002***	-0.0002	-0.003***	-0.0004**	-0.0004***
	(0.00)	(0.00)	(0.00)	(0.00)	(0.31)	(0.00)	(0.05)	(0.00)
Mother with University degree	0.07***	-0.03	0.01	0.03***	0.02	0.02	-0.0003	-0.0
	(0.00)	(0.28)	(0.53)	(0.00)	(0.36)	(0.69)	(0.98)	(0.89)
Having children	-0.09**	-0.10***	-0.12***	-0.07***	0.10***	0.20***	0.12***	0.12***
	(0.05)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
Having no parental support	0.06***	0.03**	-0.01	0.08***	-0.002	-0.01	-0.002	0.02
	(0.00)	(0.03)	(0.76)	(0.00)	(0.83)	(0.45)	(0.88)	(0.65)
Months of Unemployment	-0.0004*	-0.002***	-0.003***	-0.002***	0.0002	-0.002**	-0.0002	0.0001
	(0.07)	(0.01)	(0.00)	(0.00)	(0.31)	(0.04)	(0.59)	(0.27)
Past participation in training	-0.02***	-0.05***	0.06***	-0.01***	0.01	-0.02	0.01	0.0002
	(0.03)	(0.01)	(0.00)	(0.02)	(0.22)	(0.37)	(0.31)	(0.96)
Active job search	0.04***	-0.01	0.15***	0.10***	-0.004	0.21***	0.02***	0.02***
	(0.01)	(0.85)	(0.00)	(0.00)	(0.78)	(0.00)	(0.01)	(0.03)
Active political participation	0.004***	0.003*	0.01***	0.01***	-0.002	0.01***	-0.001	0.001
	(0.00)	(0.10)	(0.00)	(0.00)	(0.12)	(0.00)	(0.42)	(0.75)
Doing voluntary work	0.0003	0.003	0.01	0.03***	0.02	-0.05	-0.01	-0.002
	(0.99)	(0.90)	(0,56)	(0.00)	(0.39)	(0.26)	(0.92)	(0.76)
Number of observations for Y_i	276	229	405	2647	161	308	174	1281
Count-R^2 for every Y_i	0.28	0.49	0.18	0.31	0.00	0.27	0.17	0.06

Source: own elaboration on YUSE data.

Concluding remarks

This paper provides an analysis of the labour market participation decisions of young adults (18-24) in a selection of European countries. The starting point of the analysis is cross-country differences in youth labour markets depend conspicuously on the type of educational and training system adopted. The analysis focuses on three countries representing three different educational and training systems: Spain and Sweden are examples of a rigid and of a flexible sequential system, with training following education; Germany is the best example of a dual educational and training system. Multinomial LOGIT estimates of the probability to belong to five different labour market statuses – unemployment, employment, training, education and inactivity – provide a vivid picture of the features of youth labour markets in the countries considered.

Overall, the analysis suggests in Spain the most important determinants of youth participation to the labour market are education and the family background, as proxied by the university attainment of the mother and financial support from parents. Women are worse off compared to men. If they have children the probability to be socially excluded becomes very high. The recent increase in temporary employment has produced important changes in the behaviour of young people. Duration dependence has swept from positive (Ryan, 2001) to negative, due to increasing turnover, and work experience is less important than in the past as a screening device by employers, by curtailing the formative content of employment experiences.

In Germany, youth participation to the labour market seems to depend essentially on work experience and on the intensity of job search, but not so much on education. This could be interpreted as evidence of the fact that market mechanisms be more efficient in allocating job among workers, so to curb the curve of the employment returns to education. Labour market policy is still unable to affect the employment probability, suggesting the labour market be comparatively more efficient. The female labour market is also very efficient in Germany.

In Sweden, young people face a quite effective education and training system as well as an efficient labour market. As a consequence, education and the family background are less important factors of labour market participation. The small differences in the employment elasticity of workers with various educational qualifications could be taken as evidence of a good matching between labour demand and supply. ALMP significantly increases the probability to find employment and seems well targeted to the long term unemployed. A more protective welfare system reduces the effect of social exclusion linked to having children.

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